Grade 12: Biochemistry

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	Intro to Biochemistry and day-to-day applications. A review of cell organelles Minds On: Blood Typing Lab.	The Chemicals of Life: Biomolecular Functional Groups	Carbohydrate Building Blocks: The Structure of Glucose & its Isomers.	Carbohydrates: Oligosaccharides Polysaccharide Macromolecules	Lab: Identifying substances found in compounds by utilizing chemical tests (sugar, starch & acid/base)	
	Lipids: Triglycerides, Phospholipids and the Cell Membrane.	Transport across the cell membrane: Passive and Active Diffusion	Nucleic Acids are DNA building blocks.	DNA Structure its Duplication, and further modifications. Discovery of DNA Historical Case Study.	Transcription to RNA and Translation to Protein. Dry Lab: "Let DNA tell the Story"	
	The Structure of Amino Acids, and Protein Synthesis (facilitated by the Ribosomes in the ER)	Amino Acid Sequence & Protein Structure (Chaperones, Golgi Modifications and Vesicular Transport) Recent Research: Protein Folding and Modification gone wrong.	Quiz (Weeks 1 & 2). Introduce Issues Based Case Study. Time to Work on Historical Case Cartoon. Recap and Review.	Making and Breaking Macromolecules: Condensation and Hydrolysis Reactions (in the Mitochondria and Lysosome)	Oxidation-Reduction & Acid-Base Reactions	
	Recap and Review. Library Session: Where and What to look for when researching? Time to work on Issues Based Case Study.	Enzyme Catalysis of Reactions Wet Lab: The Case of Catalase.	Review Share Historical Case Cartoons.	Review. Student Q&A.	Unit Test (Issues Based Case study due the following week).	
				Notes:		